



# Chronic Wasting Disease (CWD)

## What is Chronic Wasting Disease?

Chronic Wasting Disease (CWD) is a transmissible spongiform encephalopathy (TSE) affecting farmed and free-ranging deer, elk, and moose, in North America.

CWD is a progressive, fatal, degenerative neurological disease. It was first recognized in 1967 as a clinical 'wasting' syndrome of unknown cause in captive mule deer in Colorado. CWD belongs to the family of diseases known as transmissible spongiform encephalopathies (TSEs). TSEs include a number of different diseases affecting animals or humans including bovine spongiform encephalopathy (BSE) in cattle, scrapie in sheep and goats, and Creutzfeldt-Jacob disease (CJD) in humans. Although CWD shares certain features with other TSEs, it is a distinct disease affecting only deer, elk, and moose.

The agent that causes CWD and other TSEs has not been completely characterized. However, the theory supported by most scientists is that TSE diseases are caused by proteins called prions. The exact mechanism of transmission is unclear. However, evidence suggests CWD is transmitted directly from one animal to another through saliva, feces, and urine containing prions. The species known to be susceptible to CWD are North American Elk or Wapiti (*Cervus canadensis*), Red Deer (*Cervus elaphus*), Mule deer (*Odocoileus hemionus*), Black-Tailed Deer (*Odocoileus hemionus*), White-Tailed Deer (*Odocoileus virginianus*), Sika deer (*Cervus nippon*), and Moose (*Alces alces*) as well hybrids of these species.

## Clinical Signs

CWD is a slow and progressive disease. Because the disease has a long incubation period, deer, elk, and moose infected with CWD may not produce any visible signs of the disease for a number of years after they become infected. As the disease progresses, deer, elk, and moose with CWD show changes in behavior and appearance.

Clinical signs may include:

- progressive weight loss
- stumbling
- tremors
- lack of coordination
- blank facial expressions
- excessive salivation and drooling
- loss of appetite
- excessive thirst and urination
- listlessness
- teeth grinding
- abnormal head posture
- drooping ears



Unfortunately, these signs are not specific to CWD and may occur with other diseases or malnutrition.

## What should I do if I see a deer that shows symptoms of CWD?

If you see a deer, elk, or moose showing clinical signs, accurately document the location of the animal and immediately call the Texas Animal Health Commission (TAHC) at (800)550-8242, or the nearest TPWD Wildlife Division or Law Enforcement Division office. Do not attempt to touch, disturb, kill or remove the animal.

## Vaccination

There is no known treatment or vaccine for CWD.

## Does CWD Affect Humans?

CWD has been studied by the Center for Disease Control and Prevention in Atlanta, Georgia, and they have found no evidence that CWD poses a serious risk to humans.

The World Health Organization (WHO) likewise has advised that there is no current scientific evidence that CWD can infect humans. However, as a precaution, the WHO advises that deer and elk with evidence of CWD should not be consumed by people or other animals.

## Where has CWD been Found?

CWD is known to infect wild deer, elk and moose in 21 states and in Canada: Colorado, Wyoming, Utah, South Dakota, Nebraska, Kansas, Wisconsin, Minnesota, New Mexico, Illinois, Iowa, New York, West Virginia, Virginia, North Dakota, Maryland, Texas, Pennsylvania, Michigan, and Saskatchewan and Alberta, Canada. It has been diagnosed in farmed and captive cervid facilities in Alberta, Colorado, Iowa, Kansas, Michigan, Minnesota, Missouri, Montana, Nebraska, New York, Ohio, Oklahoma, Pennsylvania, Saskatchewan, South Dakota, Wisconsin, and Texas.

## To Learn More About CWD:

- Chronic Wasting Disease Alliance:  
<http://cwd-info.org/>
- Department of Health & Human Services Center for Disease Control:  
<http://www.cdc.gov/prions/cwd/index.html>
- United States Department of Agriculture:  
<http://www.aphis.usda.gov/wps/portal/aphis/ourfocus/animalhealth/>